Chapter 2
Summary

Introduction and Background

The California Department of Parks and Recreation (DPR), the Resource Conservation District of the Santa Monica Mountains (RCDSMM), and the California State Coastal Conservancy (Coastal Conservancy), with input from the Lagoon Restoration Working Group (LRWG) and the Lagoon Technical Advisory Committee (LTAC), are proposing a restoration and enhancement plan for Malibu Lagoon (lagoon) within Malibu Lagoon State Park. The intent of the proposed plan is to restore and improve the natural structure and function of the lagoon ecosystem, including water quality, circulation, habitat, and biodiversity, and to enhance public access and education opportunities.

The 31-acre lagoon is located at the mouth of the Malibu Creek Watershed at Surfrider Beach along the northern shore of Santa Monica Bay within Malibu Lagoon State Beach. Its ecological significance as one of the last remaining coastal wetlands within Santa Monica Bay adds to the interest in developing a restoration and enhancement plan to improve the lagoon's conditions. The lagoon represents an important coastal wetland resource hosting both avian and aquatic species of important statewide and regional ecological significance.

The lagoon has experienced major changes in recent history due to nearby development and other human activities. Currently a fraction of its historical size, the lagoon is experiencing degraded conditions due to inflow of nutrient and pollutant rich water from urban runoff and storm drainage, urban encroachment, limited circulation, and invasion by non-native plant species.

The proposed plan proposes to decrease polluted runoff and increase circulation within the lagoon, thereby improving the quality of water and minimizing the effects of eutrophication. To enhance lagoon habitat, the plan would change lagoon configuration and improve slopes and drainages, replant native species, and remove non-native species. The plan proposes to relocate and renovate the parking lot, enhance public access, and erect educational displays to better the visitors' experience. An ongoing monitoring plan will be implemented to evaluate, record, and analyze existing and changing ecological conditions of the lagoon

using physical, chemical, and biological parameters. The records would allow DPR, the Coastal Conservancy, the LTAC, and other agencies and stakeholders to assess the progress toward restoration goals.

Goals and Objectives

The Lead Agency has identified the following major objectives for the proposed project:

- Decrease urban runoff from surrounding sources into the lagoon to improve its water quality and decrease eutrophication.
- Increase circulation of water during open and closed conditions.
- Restore habitat by re-establishing suitable soil conditions and native plant species and removing non-native species.
- Relocate existing parking lot to increase habitat size and eliminate polluted runoff to the lagoon.
- Evaluate, record, and analyze existing and changing ecological conditions of the lagoon using physical, chemical, and biological parameters to allow agencies, organizations, and stakeholders to monitor progress towards restoration goals.

Project Location and Setting

Malibu Lagoon is a 31-acre shallow water embayment occurring at the terminus of the Malibu Creek Watershed, the second largest watershed draining into Santa Monica Bay. Malibu Lagoon empties into the Pacific Ocean at Malibu Surfrider Beach and is generally located south of the intersection of PCH and Cross Creek Road at Malibu Lagoon State Beach in the City of Malibu. Please refer to Chapter 3 for project location maps.

Project Description

The purpose of the plan is to restore and enhance the ecological conditions of the lagoon and improve public access and education about the lagoon. The plan presents information regarding the current condition of the lagoon, goals and strategies for the restoration, and implementation of a monitoring plan. Essentially, the plan offers strategies to protect the lagoon as one of the remaining southern California coastal wetlands, prevent further deterioration of the lagoon, improve visitors' experience, and educate the public about the lagoon's ecosystem processes.

Based on the findings of the *Malibu Lagoon Restoration Feasibility Study Final Alternatives Analysis,*[1] DPR, the Coastal Conservancy, and the LTAC, with substantial input from the LRWG, recommended Alternative 1.5 as the preferred restoration design for the lagoon. Major components of the preferred plan alternative[2] are explained below.

The existing parking lot would be relocated to the north and west to be adjacent to the PCH. The new parking lot and staging areas would be created with runoff treatment controls, including permeable pavement or other similar substances, appropriate native vegetation, and would include a staging area to enhance existing educational and recreational uses of the site. The current number of parking spaces would remain and new interpretive displays and panels would be installed.

The main lagoon channel would remain substantially "as is." The western edge of the main lagoon at the interface with the western arms complex would be reconfigured in the form of a naturalized slope to provide a degree of separation between main lagoon and west channel system.

The existing boathouse channel would be deepened and recontoured to create a new avian island along the bank of the Adamson House grounds. This would create additional mudflat habitat and promote additional water circulation around the new island.

The project employs a holistic approach to habitat restoration. The overall restoration plan has individual elements such as the Water Management Plan, Habitat Plan, Access, Education, and Interpretation Plan, and Monitoring Plan. Please refer to Chapter 3, Project Description, for more detail, plans, and maps of the proposed project.

Alternatives to the Proposed Project

CEQA requires that an EIR describe a range of reasonable alternatives to the proposed project or to the location of the restoration plan that could feasibly avoid or lessen any significant environmental impacts while substantially attaining the basic objectives of the restoration plan. The alternatives described below (with the exception of the No-Project Alternative) were carried forward from the *Malibu Lagoon Restoration Feasibility Study Final Alternatives Analysis*. Please refer to Chapter 11 and Table 11-1 for a complete discussion of project alternatives and their comparative environmental impacts.

[1]Moffatt & Nichol in association with Heal the Bay. *Malibu Lagoon Restoration Feasibility Study, Final Alternatives Analysis*. March 2005. This document is available on the Heal the Bay website: http://www.healthebay.org/currentissues/mlhep/default.asp

[2] Moffatt & Nichol. Final Malibu Lagoon Restoration and Enhancement Plan. June 2005.

No Project

Under the No Project Alternative, implementation of the Restoration and Enhancement Plan would not occur. The parking lot and lagoon would remain and continue to be used by the public in its existing state. As a consequence, the No Project Alternative would not result in any of the beneficial effects of the proposed project. Biological restoration goals would not be achieved and habitat conditions would likely continue to degrade.

Moreover, water quality would continue to degrade as sediment carried from storm flows is deposited in the lagoon area, thus contributing to aggradation and formation of eutrophic conditions. The No Project Alternative would not contribute to compliance with TMDL targets for nutrients and bacteria, thus, water quality would remain impaired and likely worsen over time.

Alternative 1: Enhancement Alternative

The Enhancement Alternative was designed with the intent to improve existing conditions in the western lagoon arms with the least cost and least degree of disturbance to the existing lagoon habitat. The elevations of the channels in the western portion of the lagoon are too high to allow for inundation at ocean tidal elevations below mean sea level when the barrier beach berm is open. In addition the western channels are too narrow, constricted, and isolated from one another to allow for adequate circulation of lagoon water. The existing topography has resulted in an overabundance of upland habitat.

The enhancement alternative would lower the existing channels elevations, thus allowing for an increase tide indundation during open conditions. Topography of the channels and islands in the western lagoon would be lowered to accommodate vegetation types typically associated with coastal estuaries. Channel widths and depths would be increased and channels would be connected to remove existing dead ends.

Alternative 1 does not include improvements to the parking lot area or educational components.

Further discussion of Alternative 1 can be found in the *Malibu Lagoon Restoration Feasibility Study Final Alternatives Analysis* on pages 44 and 45.

This Alternative intends to:

- Improve circulation by expanding and deepening of existing channels in the western arms;

- Remove dead ends by connecting the A (north) channel to the C (south) Channel;
- Establish more appropriate marsh vegetation by lowering the elevation of western channels and islands to minimize upland habitat;
- Increase lagoon holding capacity during closed conditions;
- Provide additional bird habitat and minimize the need to export soils offsite by expansion of the mid-stream bar in the main lagoon body (no structural engineering is proposed to protect this bar).
- Provide unvegetated avian areas through the creation of a salt panne. The salt panne is intended to create an unvegetated area that uses a depression to capture water that will subsequently evaporate leaving behind higher salts in the soils that will minimize vegetative growth; and
- Minimize cost and disruption to existing lagoon habitats.

In comparison to the proposed project, Alternative 1 would result in lesser beneficial effects to biological resources; similar cultural resources effects; similar consistency with local and regional plans; and a lesser degree of temporary construction impacts. However, this alternative could result in adverse impacts to hydrology and water quality, whereas the proposed project would be beneficial in this regard.

Alternative 1.75 Restore/Enhance Modify with the North Channel

The Restore/Enhance Modify with the North Channel is a variation of the proposed project that includes the North Channel connection as an adaptive management tool. The North Channel may further improve flushing through the upper western arms and circulation during closed conditions. Further discussion of Alternative 1.75 can be found in the *Alternatives Analysis* on page 52.

Alternative 1.75 was intended to achieve:

- Tidal influence created by a single main channel with a naturalized dendritic planform more indicative of natural systems;
- Increased tidal flushing during open conditions by deepening of the west lagoon (no work is proposed in the main lagoon). This will also increase holding capacity (storage volume);
- Enhanced and increased salt marsh environment during open conditions and maximized wind fetch to enhance wind-driven circulation during closed conditions;

- Permanent avian islands. These islands will be designed to afford better protection from predators and will be optimized to suit avian enhancement goals;
- Expanded wetland and marsh acreage by relocating the existing parking lot into degraded upland habitat. The new parking lot will be designed to be permeable to maximize water quality enhancements through naturalized filtration/infiltration;
- Increased flushing of sediments through the connection of the new North Channel;
- Opportunities for new visitor facilities and educational resources.

In comparison to the proposed project, Alternative 1.75 would result in similar beneficial effects to biological resources; similar cultural resources effects; similar consistency with local and regional plans; and a similar degree of temporary construction impacts. This alternative would result in greater beneficial effects with regard to hydrology and water quality however.

Alternative 2.0: Restore and Enhance Alternative

The Restore and Enhance Alternative intends to restore and enhance those areas that have diminished in functions or are in a currently degraded state.

The proposed new North Channel connection is meant to convey an appropriate source of drainage from upstream that could include the Cross Creek storm drain, the main creek, or both. The North Channel would act as a connection between the upper end of the western arm to the Cross Creek storm drain, the main creek or both under a western bent on the PCH Bridge. The purpose is to convey a limited stormflow discharge into the upstream end of the western arms to flush fine sediment from the western lagoon. Further discussion of Alternative 2 can be found in the *Alternatives Analysis* on pages 48 and 49.

Alternative 2.0 was intended to achieve:

- Tidal influence created by a single sinuous main channel;
- Increased tidal flushing during open conditions by deepening of the west lagoon (no work is proposed in the main lagoon). This would also increase holding capacity (storage volume);
- Enhanced and increased salt marsh environment during open conditions and maximized wind fetch to enhance wind-driven circulation during closed conditions; and
- Unvegetated avian areas through the creation of a salt panne. The salt panne is intended to create an unvegetated area that uses a depression to capture water that would subsequently evaporate

leaving behind higher salts in the soils that would minimize vegetative growth.

In comparison to the proposed project, Alternative 2 would result in similar beneficial effects to biological resources; similar cultural resources effects; similar consistency with local and regional plans; and a similar degree of temporary construction impacts. This alternative would also result in similar beneficial impacts to hydrology and water quality.

Areas of Controversy

The scoping process did not reveal any areas of controversy surrounding the project.

Issues to Be Resolved

There are no outstanding issues to be resolved.

Summary of Impacts and Mitigation Measures

Table 2-1 presents a summary of impacts under each resource area, recommended mitigation measures, and the level of significance of impacts before and after implementation of mitigation measures.

Table 2-1. Summary of Environmental Effects

Potential Environmental Impacts	Significance Determination	Mitigation Measures	Level of Significance after Mitigation
DEIR Chapter 4 – Consistency with Local and Regional Plans			
The use and designation of the project site would not change as a result of the restoration and enhancement project and would be compatible with the surrounding land uses, which include single-family residential, public open-space, and visitor-serving commercial.	No Impact	No mitigation is required.	No Impact
The restoration and enhancement plan would be consistent with the relevant policies and objectives in the Malibu General Plan, Malibu Lagoon State Beach Resource Management Plan & Development Plan, California Coastal Act, and the Malibu Local Coastal Program.	No Impact	No mitigation is required.	No Impact
The restoration and enhancement plan does not conflict with any plans, policies, goals, objectives, or zoning designations.	No Impact	No mitigation is required.	No Impact
DEIR Chapter 5 – Hydrology and Water Quality			
The project would result in improved water quality due to increased circulation within the lagoon system.	Beneficial	No mitigation is required.	Beneficial
The relocation and reconfiguration of the parking lot would result in altered surface drainage and associated flood flow patterns. Permeable paving materials and drainage swales would reduce the quantity and improve the quality of surface runoff. Maintenance of the storm water runoff components is critical to maintaining benefits long-term and thus mitigation measure HYDRO-1 is required.	Beneficial	HYDRO-1: Maintenance of stormwater system. Permeable tiles, drainage swales, pumps, pipelines, and any associated equipment must be maintained on a regular basis to ensure full functioning. Maintenance may include removal of fine sediments from tile gaps for proper infiltration and periodic sediment removal from drainage swales for capacity maintenance. The project manager will ensure that all components of the storm drainage system are maintained to design and manufacturer specifications on a regular basis.	Beneficial

Potential Environmental Impacts	Significance Determination	Mitigation Measures	Level of Significance after Mitigation
Effects to sediment delivery patterns as a result of the project could affect beach replenishment and nearshore coastal habitat. Under the proposed project, the inlet channel to the western arms of the lagoon would be relocated southward and positioned to reduce the western arms exposure to sedimentation during and following storms. It is anticipated that more storm delivered sediments would be transported directly to the main lagoon, and subsequently be available to the coastal zone for beach nourishment or down-coast transport. The project is not likely to significantly alter sand related depositional processes.	Less than Significant	No mitigation is required.	Less than Significant
The project could affect natural tidal lagoon opening and closure patterns. While the proposed lagoon restoration project will alter the geometry, volume, and orientation of the lagoon, it will not significantly affect the mass water balance of the watershed that is the principal influence behind the lagoon being either open or closed. The proposed project is not anticipated to alter the seasonal patterns or processes driving lagoon opening and closure.	Less than Significant	No mitigation is required.	Less than Significant
The project would reduce the potential to expose people or structures to risk of flooding or impede 100-yr flood flows. The holding capacity of the lagoon would increase and the storm water components of the parking area would reduce and redirect storm flows.	Beneficial	No mitigation is required (see Mitigation Measure HYDRO-1).	Beneficial
Groundwater supply and recharge would be immeasurably affected by reconfiguration of surface water runoff and lagoon morphology.	Less than Significant	No mitigation is required.	Less than Significant
The proposed project would not alter the existing potential for the area to be inundated by a seiche, tsunami, or hillslope related mudflow processes.	Less than Significant	No mitigation is required.	Less than Significant

Potential Environmental Impacts	Significance Determination	Mitigation Measures	Level of Significance after Mitigation
DEIR Section 6 – Biological Resources			
Construction of the project could result in some loss of, or temporary disturbance to, the following vegetation communities and habitats: southern willow scrub; atriplex scrub; baccharis scrub; mule fat scrub; Venturan coastal sage; mixed scrub; coastal salt marsh; brackish marsh; coastal and valley freshwater marsh; southern sycamore-alder riparian woodland; non-native grassland; mudflats; beach/sand bar; and open water. Any removal or damage to these resources could have a temporary, short-term adverse effect on sensitive natural communities or federally protected wetlands; however, this and other restoration activities (such as replanting of native species, removal of non-native species, ongoing monitoring, wetland expansion, etc) would result in a long-term benefits to the lagoon. Total available marsh habitat would increase roughly 7 acres – a 115% increase over existing conditions. The functions and values of the biological resources within the lagoon would be improved as a result of implementation of the project.	Less than Significant	No mitigation is required.	Less than Significant
Construction activities could affect common wildlife species that occur in the project area. Any disturbance to wildlife and/or habitat during construction would be adverse, but less than significant given the temporary and intermittent nature of effects.	Less than Significant	No mitigation is required.	Less than Significant
Construction activities could result in direct or indirect impacts on California black walnut. The individual black walnuts observed in the southern sycamore-alder riparian woodland during the 2004 vegetation mapping do not represent a significant population of this CNPS list 4 species. Thus, less-than-significant impacts would result from potential disturbance to black walnut.	Less than Significant	No mitigation is required.	Less than Significant

Potential Environmental Impacts	Significance Determination	Mitigation Measures	Level of Significance after Mitigation
Construction activities could result in temporary disturbance to the wandering (salt marsh) skipper. However, pre- and post-project acreages of suitable habitat for wandering (salt marsh) skipper would be similar if not identical. Any potential impacts during construction would be less than significant.	Less than Significant	No mitigation is required.	Less than Significant
Construction activities could result in impacts to southern steelhead trout.	Significant	BIO-1: Southern Steelhead Trout. Construction and lagoon excavation may occur during steelhead migration. In order to avoid direct impacts to steelhead, wetland excavation shall occur such that grading activity and equipment are separated from surface connections to the existing lagoon by earthen berms. Groundwater that may accumulate in these excavated areas shall be returned to the lagoon, via pump, in a manner that eliminates sediment and the potential to disturb lagoon salinity stratification, substrate, and temperature. In certain circumstances, physical or biological constraints may make it infeasible for excavations to be separated by earthen berms from the main body of the existing lagoon. In these situations, impacts shall be avoided by separating construction activity from the main lagoon by the temporary placement of a cofferdam wall, silt curtains, and block nets or a combination of similar tools. In the event that water must be pumped from these areas during construction, it shall be returned to the lagoon, via pump, in a manner that eliminates sediment and the potential to disturb lagoon salinity stratification, substrate, and temperature. Fish salvage efforts shall be conducted for any surface water that must be separated from the main lagoon. After construction, the area shall be reflooded in a manner that minimizes disturbance of the lagoon salinity stratification and substrate and the release of sediment. Reinundation of the western lagoon may provide refuge areas for fish during construction activities in the main lagoon. Block netting and barriers shall be used to exclude adult gobies, migratory steelhead, and other fish from the work areas. On-site monitoring by a USFWS-approved	Less than Significant

Potential Environmental Impacts	Significance Determination	Mitigation Measures	Level of Significance after Mitigation
		fisheries biologist would be conducted during any channel or bank disturbance. Pages 100 and 101 of the Final Alternatives Analysis prepared by Moffatt and Nichol (March 2005) outline a possible construction sequence in more detail that incorporates several of these ideas.	
Construction activities could result in impacts to the tidewater goby.	Significant	BIO-2: Tidewater Goby. Construction of the restoration project shall be timed to minimize disturbance of the western shoreline of the main lagoon when larval tidewater gobies are using the near-shore habitat. In order to avoid direct impacts to gobies, wetland excavation shall occur such that grading activity and equipment are separated from surface connections to the existing lagoon by earthen berms. Groundwater that may accumulate in these excavated areas shall be returned to the lagoon, via pump, in a manner that eliminates sediment and the potential to disturb lagoon salinity stratification, substrate, and temperature. In certain circumstances, physical or biological constraints may make it infeasible for excavations to be separated by earthen berms from the main body of the existing lagoon. In these situations, impacts to gobies shall be avoided by separating construction activity from the main lagoon by the temporary placement of a cofferdam wall, silt curtains, and block nets or a combination of similar tools. In the event that water must be removed from these areas during construction, it shall be returned to the lagoon, via pump, in a manner that eliminates sediment and the potential to disturb lagoon salinity stratification, substrate, and temperature. Fish salvage efforts shall be conducted for any surface water that must be separated from the main lagoon. After construction, the area shall be reflooded in a manner that minimizes disturbance of the lagoon salinity stratification and substrate and the release of sediment. Construction in the main lagoon shall occur outside of the May 1 through November 1 breeding season for the tidewater gobies. Re-inundation of the western lagoon may provide refuge areas for fish during construction activities	Less than Significant

Potential Environmental Impacts	Significance Determination	Mitigation Measures	Level of Significance after Mitigation
		in the main lagoon. Block netting shall be used to exclude adult gobies, migratory steelhead, and other fish from the work areas. On-site monitoring by a USFWS approved fisheries biologist would be conducted during any channel or bank disturbance. Pages 100 and 101 of the Final Alternatives Analysis prepared by Moffatt and Nichol (March 2005) outline a possible construction sequence in more detail that incorporates many of these ideas.	
Construction activities could result in disturbance to California brown pelican.	Significant	BIO-3: California Brown Pelican. On-site monitoring by a USFWS-approved biologist shall be conducted during any disturbance within suitable/occupied habitat for this species.	Less than Significant
Construction activities could result in disturbance to western snowy plover.	Significant	BIO-4: Western Snowy Plover. Schedule construction activities and ground disturbance in suitable/occupied habitat to avoid the western snowy plover breeding season from mid-March to August 30. On-site monitoring by a USFWS-approved biologist shall be conducted during any disturbance within suitable/occupied habitat for this species.	Less than Significant
Construction activities could result in disturbance to Heermann's Gull.	Significant	BIO-5: Heermann's Gull. On-site monitoring by a USFWS-approved biologist shall be conducted during any disturbance within suitable/occupied habitat for this species.	Less than Significant
Construction activities could result in disturbance to elegant tern.	Significant	BIO-6: Elegant Tern. On-site monitoring by a USFWS-approved biologist shall be conducted during any disturbance within suitable/occupied habitat for this species.	Less than Significant
Construction activities could result in disturbance to the California least tern.	Significant	BIO-7: California Least Tern. Schedule construction activities and ground disturbance to avoid the California least tern breeding season and post-breeding season foraging (July to August). On-site monitoring by a USFWS-approved biologist shall be conducted during any disturbance within suitable/occupied habitat for this species.	Less than Significant

Potential Environmental Impacts	Significance Determination	Mitigation Measures	Level of Significance after Mitigation
DEIR Chapter 7 – Cultural Resources			
Construction of the proposed project could result in impacts to Prehistoric site *Humaliwo* (CA-LAN-264).	Significant	CR-1: Cultural Resources Testing in Area Adjacent to CA-LAN-264 Cultural resources, including CA-LAN-264 and the historic Adamson House grounds and ancillary structures, will be avoided to the extent possible. The hydrology of the lagoon will not be changed such that the boathouse or grounds are at greater risk of flood or construction impacts. Cultural resources excavations will be undertaken prior to any ground-disturbing activities along the eastern bank of the main lagoon channel adjacent to CA-LAN-264 if any project-related earthwork occurs within 100 feet of the known boundary of CA-LAN-264. Test excavations shall not take place within the known boundaries of CA-LAN-264 but adjacent to the boundaries if project construction would require any ground-disturbing activities within 100 feet of the known site boundary. Because sensitivity is moderate to high for cultural resources, including human remains, to be present along this edge of the project area, a subsurface testing program should be implemented to identify if resources are present, and evaluate potential NRHP-eligible resources. This should be undertaken if any project related construction comes within 100 feet of the known boundary of CA-LAN-264 (See Dillon 1987:45). If subsurface testing identifies intact, significant archaeological resources within the project area that cannot be avoided, the project would have an adverse effect. Development of measures to mitigate adverse effects would be necessary and a Memorandum of Agreement would be required to complete Section 106 consultation. The preconstruction testing program should include, but need not be limited to: • development of a testing strategy to identify subsurface archaeological deposits, including further research on previous investigations and regarding	Less than Significant

Potential Environmental Impacts	Significance Determination	Mitigation Measures	Level of Significance after Mitigation
		previous lagoon excavations, in an effort to refine the scope of any field effort; • evaluation of significance and integrity of exposed archaeological deposits (according to the National Historic Preservation Act [NHPA], NRHP, and CRHR criteria) if present, in consultation with the State Historic Preservation Officer (SHPO); and • consultation with local Native Americans if prehistoric or ethnohistoric resources are identified. Upon identification of any significant prehistoric or historical archaeological resources, it will be necessary to avoid these resources during project development, or to formulate a treatment plan to mitigate adverse effects. A treatment plan, adopted within a Memorandum of Agreement, to be negotiated in consultation with the SHPO, would likely include the following: • an acceptable data recovery plan stating specific research goals and questions that are to be addressed if archaeological deposits are to be recovered, • postfield artifact processing and analysis, • report preparation in accordance with the guidelines of CDPR, and • permanent curation of artifacts and documents in a repository consistent with the National Park Service guidelines for the curation of archaeological collections (36 Code of Federal Regulations [CFR] 79). Feature recovery should employ standard archaeological excavation techniques. The testing and evaluation plan should be designed and implemented by a qualified Prehistorical Archaeologist and, if discoveries warrant, a qualified Historical Archaeologist. Both the testing and evaluation plan and the data recovery strategy should be developed in consultation with the project proponent and interested local Native American groups. It should state that Native American human	

Potential Environmental Impacts	Significance Determination	Mitigation Measures	Level of Significance after Mitigation
		remains will be treated in compliance with Health and Safety Code, Sections 7050.5, 8010, and 8011 and Public Resources Code, Section 5097.98. Given the potential for encountering Native American artifacts, a Native American should monitor all subsurface excavations.	
		CR-2: Cultural Resources Monitoring in Area Adjacent to CA-LAN-264 Cultural resources monitoring is recommended during any ground disturbing activities along the eastern bank of the main lagoon channel adjacent to CA-LAN-264. Monitoring will be conducted if conditions allow for observation of spoils. Monitoring of dredging is probably not feasible given underwater activity would not be visible. However, underwater cultural sites may be present, and the material dredged will be inspected for the presence or absence of cultural material. The remainder of the project area may be monitored if notable cultural materials are discovered, or monitoring may be further limited if the monitoring area appears previously disturbed (as may be the case in areas where the California Department of Transportation (Caltrans) has deposited fill material and riprap). If prehistoric cultural resources are discovered in this area during monitoring or other construction, all work will be halted in the vicinity of the archaeological discovery until a qualified archaeologist can visit the site of discovery and assess the significance of the archaeological discovery. Further treatment may be required, including site recordation, excavation, site evaluation, and data recovery.	
Potential exists for ground-disturbing activities to damage previously unidentified buried cultural resources sites.	Potentially Significant	CR-3: Stop Work If Cultural Resources Are Discovered during Ground-Disturbing Activities. If buried cultural resources—such as flaked or ground stone, historic debris, building foundations, shellfish remains or non-human bone—are inadvertently discovered during ground-disturbing activities, work will stop in that area and within 100 feet of the find until a	Less than Significant

Potential Environmental Impacts	Significance Determination	Mitigation Measures	Level of Significance after Mitigation
		State Parks archaeologist or designee can assess the significance of the find and, if necessary, develop appropriate treatment measures. Treatment measures typically include: development of avoidance strategies, capping with fill material, or mitigation of impacts through data recovery programs, such as excavation or detailed documentation. Avoidance of cultural remains shall be the top priority at all times. If cultural resources are discovered during construction activities, the construction contractor will verify that work is halted until appropriate site-specific treatment measures, such as those listed above, are implemented.	
		CR-4: Comply with State Laws Pertaining to the Discovery of Human Remains. If human remains of Native American origin are discovered during ground-disturbing activities, it is necessary to comply with state laws relating to the disposition of Native American burials that fall within the jurisdiction of the California Native American Heritage Commission (Public Resources Code Section 5097). Construction work shall not continue within 100 feet of a location where human skeletal remains are found. According to California Health and Safety Code, six or more human burials at one location constitute a cemetery (Section 8100), and disturbance of Native American cemeteries is a felony (Section 7052). Section 7050.5 requires that excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains are those of a Native American. If the remains are determined to be Native American, the coroner must contact the California Native American Heritage Commission to determine the most likely living descendant(s). The most likely living descendant shall determine the most appropriate means of treating the human remains and any associated grave artifacts, and shall oversee disposition of the human remains and	

Potential Environmental Impacts	Significance Determination	Mitigation Measures	Level of Significance after Mitigation
		associated artifacts by the project archaeologists. This impact would be significant, but implementation of the mitigation measures above would reduce this impact to a less-than-significant level.	
DEIR Chapter 8 – Construction Effects			
Air Quality: Pollutant emissions during Phase I and Phase II construction.	Less than Significant	No mitigation is required. However, as best management practices consistent with SAQMD Rule 403 compliance, the following measures shall be taken during construction: AQ-1: Dust sweeping. The construction area and vicinity (driveways, access roads, and staging areas) shall be swept with water sweepers on a daily basis or as necessary to ensure there is no visible dust.	Less than Significant
		AQ-2: Covering or watering of stockpiles. On-site stockpiles of debris, dirt or rusty material shall be covered or watered at least twice daily to prevent fugitive dust.	
		AQ-3: Covering of haul trucks. All haul trucks hauling soil, sand, and other loose materials shall either be covered or maintain two feet of freeboard.	
No changes to existing land uses would occur during construction of the project and no impacts would result. Please refer to Chapter 4 for a discussion of the project's consistency with local and regional planning documents.	No Impact	No mitigation is required.	No Impact
Hydrology and Water Quality: Release of construction-related sediment from access roads, staging areas, ground-disturbing activities and stock piling during Phase I and Phase II construction into the lagoon could affect water quality.	Potentially Significant	HYDRO-2: Implement Best Management Practices to Control Discharge of Construction-Related Pollutants to Surface Waters. Because project construction will cover an area greater than 1 acre, a Storm Water Pollution Prevention Plan (SWPPP) will be prepared by the Lead Agency or its contractor as required by the regional water quality control board (RWQCB) under the National Pollutant Discharge Elimination System (NPDES) General Construction Permit. The SWPPP shall meet the requirements of the RWQCB as well as any City and County requirements.	Less than Significant

Potential Environmental Impacts	Significance Determination	Mitigation Measures	Level of Significance after Mitigation
		The SWPPP will identify best management practices (BMPs) to maintain water quality. The final selection and design of erosion and sediment controls shall be subject to approval by the Lead Agency. BMPs in the SWPPP may include, but is not limited to, the following elements: • Temporary erosion control measures (such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover) will be employed for disturbed areas. • Earth dikes, drainage swales, and ditches shall be provided to intercept, divert, and convey surface runoff and sheet flow; prevent erosion; and reduce pollutant loading. Specific areas that may need such measures shall be identified on the construction drawings. • Roads used during construction shall be continuously swept and cleaned of accumulated earth and debris in the construction zone during project construction, particularly before predicted rainfall events. • Excavated materials deposited or stored on-site temporarily shall not be placed in or adjacent to open water channels and shall be wetted and covered as necessary to prevent runoff and erosion. • Oils, fuels, and other toxicants spilled or deposited near the project site shall be removed and disposed of according to applicable laws and regulations. • Establish grass or other vegetative cover over areas that have been disturbed by construction as soon as possible after disturbance to establish vegetative cover. This will reduce erosion by slowing runoff velocities, enhancing infiltration and transpiration, trapping sediment and other particulates, and protecting soil from raindrop impact. The Lead Agency and/or its contractors shall implement a monitoring program to verify BMP effectiveness. The monitoring program shall begin at the outset of construction and terminate upon completion of the project.	

Potential Environmental Impacts	Significance Determination	Mitigation Measures	Level of Significance after Mitigation
		HYDRO-3: Implement a Hazardous Material Spill Prevention Control and Countermeasure Plan. A Hazardous Material Spill Prevention Control and Countermeasure Plan would be prepared as part of the NPDES General Construction Permit to minimize the potential for, and effects from, spills of hazardous, toxic, or petroleum substances during construction of the project. This plan will describe storage procedures and construction site housekeeping practices and identify the parties responsible for monitoring and spill response. Routine inspections and monitoring of best management practices would ensure minimal impacts to the environment occur. Commonly practiced best management practices include use of containment devices for hazardous materials, training of construction staff regarding safety practices to reduce the chance for spills or accidents, and use of nontoxic substances where feasible. The plan also would describe actions required if a reportable spill occurs, such as which authorities to notify and the proper clean-up procedures. The Hazardous Material Spill Prevention Control and Countermeasure Plan would contain standards considered sufficiently protective such that significant adverse impacts on surface and groundwater quality would be avoided. The plan shall be completed before any construction activities begin.	
Temporary alteration of drainage patterns would occur during Phase II construction. Construction activities in Phase II could require dewatering and discharge to adjacent surface waters, thus coverage would need to be obtained under an individual NPDES dewatering permit. The LARWQCB will be consulted by the project proponent to obtain the permit. The permit would contain standards considered sufficiently protective such that significant adverse impacts on surface water quality would be avoided.	Less than Significant	No mitigation is required.	Less than Significant

Potential Environmental Impacts	Significance Determination	Mitigation Measures	Level of Significance after Mitigation
Biological Resources: (Potential construction phase impacts to biological resources are detailed under the Chapter 6 heading above.)			
Cultural Resources: (Potential construction phase impacts to biological resources are detailed under the Chapter 7 heading above.)			
Noise: Temporary increases in noise levels during project construction.	Significant	N1: Use of mufflers. Construction contracts shall specify that all construction equipment shall be equipped with mufflers and other suitable noise attenuation devices.	Significant
		N2: Notice of construction schedule and noise "hotline." All residential units located within 500 feet of the construction site shall be sent a notice regarding the construction schedule of the proposed project. A clearly legible sign shall also be posted at the construction site. All notices and the signs shall indicate the expected dates and duration of construction activities, as well as provide a telephone number that residents can call to resolve any concerns about construction noise. The Lead Agency shall be responsible for responding to any local complaints about construction noise. The Lead Agency (or designee) would determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and would be required to implement reasonable measures such that the complaint is resolved.	
		N3: Limits of hours of construction. Pursuant to the Noise Control Ordinance of the City of Malibu, Section 8.24.050G, construction activities shall be prohibited during the hours between 7:00 p.m. and 7:00 a.m. during the weekdays and any time on Sundays or holidays. All construction related to the proposed project would take place between the hours defined by the Ordinance. Additionally, construction activities shall be coordinated with Adamson House staff to ensure that potentially disturbing construction activities do no occur during planned events at the Adamson House, such as Saturday weddings.	

Potential Environmental Impacts	Significance Determination	Mitigation Measures	Level of Significance after Mitigation
Traffic and Circulation: Construction of the proposed project would not generate a substantial number of construction-related truck trips or construction worker trips. All heavy truck traffic will follow designated truck routes, to be coordinated with the City of Malibu and Caltrans, as required. Construction equipment staging areas and access will also be developed in consultation with the City of Malibu. Beach access will be maintained at all times during construction and alternate parking will be available during construction of the new parking lot.	Less than Significant	No mitigation is required.	Less than Significant
DEIR Chapter 9 – Effects not considered significant			
Aesthetics: The project will not result in new sources of light or glare or otherwise result in adverse aesthetic impacts. Improvements to the lagoon, including new boardwalks improved habitat, and educational displays, would result in beneficial aesthetic effects.	No Impact	No mitigation is required.	No Impact
Agricultural Resources: No farmland exists on, or within the vicinity of Malibu Lagoon.	No Impact	No mitigation is required.	No Impact
Air Quality: Operation of the proposed project would not result in new vehicle trip generation. The number of parking spaces would also remain the same. The project has no other components that could reasonably be expected to result in adverse air quality effects.	Less than Significant	No mitigation is required.	Less than Significant
Geology and Soils: As part of the restoration process, topsoil salvage and management of vegetative communities would occur. The proposed project would not result in increased exposure of people to geologic hazards.	Less than Significant	No mitigation is required.	Less than Significant

Potential Environmental Impacts	Significance Determination	Mitigation Measures	Level of Significance after Mitigation
Hazardous Materials and Public Health (Vector Control): The proposed project would increase tidal flushing and improve water circulation, which would reduce, if not eliminate, areas of stagnant water.	Beneficial Impact	No mitigation is required.	Beneficial Impact
Mineral Resources: The site does not lie within an area classified by the Surface mining and Reclamation Act as a production-consumption region for mineral resources. The project would not involve the extraction of mineral resources.	No Impact	No mitigation is required.	No Impact
Noise: Post-construction there would be no increase in ambient noise levels. No new vehicle trips are anticipated as a result of the project and no other project components can reasonably be expected to result in substantial noise increases.	No Impact	No mitigation is required.	No Impact
Population and Housing: The project would not result in a population increase or any increase in demand for housing.	No Impact	No mitigation is required.	No Impact
Public Services: The project would not result in increase in demand for public services or facilities.	No Impact	No mitigation is required.	No Impact
Recreation: The improvements such as interpretive displays and panels, as well as multiple interpretive nodes/loops, would serve to enhance the educational and recreational uses of the site.	Beneficial Impact	No mitigation is required.	Beneficial Impact
Transportation/Circulation (Post-Construction): Operation of the proposed project would not result in any new vehicle trips since the existing use of the lagoon would remain unchanged. Parking, circulation, and access improvements would have negligible effects.	No Impact	No mitigation is required.	No Impact
Utilities and Service Systems: The project would not result in increased demand for utilities or service systems, including water supply, wastewater (septic/sewer), and solid waste.	No Impact	No mitigation is required.	No Impact

Mitigation Monitoring and Reporting

The Mitigation Monitoring and Reporting Program (MMRP) is a CEQA-mandated outcome of the EIR process undertaken for the proposed project. The results of the environmental analyses, including proposed mitigation measures, are documented in the Final EIR for the proposed project.

CEQA requires that agencies adopting EIRs take affirmative steps to determine that approved mitigation measures are implemented subsequent to project approval.

Effective January 1, 1989, CEQA was amended to add Section 21081.6, implementing Assembly Bill (AB) 3180. As part of CEQA (state-mandated) environmental review procedures, Section 21081.6 requires a public agency to adopt a monitoring and reporting program for assessing and ensuring efficacy of any mitigation measures applied to the proposed project. Specifically, the lead or responsible agency must adopt a reporting or monitoring program for mitigation measures incorporated into a project or imposed as conditions of approval. The program must be designed to ensure compliance during project implementation. As stated in Public Resources Code, Section 21081.6 (a) (1):

> "The public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation. For those changes which have been required or incorporated into the project at the request of a responsible agency or a public agency having jurisdiction by law over natural resources affected by the project, that agency shall, if so requested by the lead agency or a responsible agency, prepare and submit a proposed reporting or monitoring program."

AB 3180 provides general guidelines for implementing monitoring and reporting programs (MMRP). Specific reporting and/or monitoring requirements, to be enforced during project implementation, shall be defined prior to final approval of the proposal by the responsible decision maker(s). In response to established CEQA requirements and those of AB 3180 (Public Resources Code Section 21000 et seq.), the proposed MMRP for the Malibu Lagoon Restoration and Enhancement Plan shall be submitted for consideration by the decision makers prior to completion of the environmental review process.

Table 2-2 is the final Mitigation Monitoring and Reporting matrix. The table lists each of the mitigation measures proposed in the EIR and specifies the following monitoring requirements for each:

- Party Responsible for Implementation of Mitigation,
- Implementation Phase,

- Party Responsible for Monitoring Activity,
- Monitoring Activity,
- Monitoring Period,
- Monitoring Frequency, and
- Outside Agency Coordination.

Table 2-2. Mitigation Monitoring and Reporting

MITIGATION MEASURE	IMPLEMENTATION	MONITORING	OUTSIDE AGENCY COORDINATION
BIO-1 Southern Steelhead Trout. Construction and lagoon excavation may occur during steelhead migration. In order to avoid direct impacts to steelhead, wetland excavation shall occur such that grading activity and equipment are separated from surface connections to the existing lagoon by earthen berms. Groundwater that may accumulate in these excavated areas shall be returned to the lagoon, via pump, in a manner that eliminates sediment and the potential to disturb lagoon salinity stratification, substrate, and temperature. In certain circumstances, physical or biological constraints may make it infeasible for excavations to be separated by earthen berms from the main body of the existing lagoon. In these situations, impacts shall be avoided by separating construction activity from the main lagoon by the temporary placement of a cofferdam wall, silt curtains, and block nets or a combination of similar tools. In the event that water must be pumped from these areas during construction, it shall be returned to the lagoon, via pump, in a manner that eliminates sediment and the potential to disturb lagoon salinity stratification, substrate, and temperature. Fish salvage efforts shall be conducted for any surface water that must be separated from the main lagoon. After construction, the area shall be reflooded in a manner that minimizes disturbance of the lagoon salinity stratification and substrate and the release of sediment.	Responsible Party(s) • State Parks Phase • Phase 2 Construction	Responsible Party(s) • State Parks Activity • Retain USFWS-approved biologist to monitor lagoon earthwork and make determination about need for further monitoring as construction continues. Monitoring Period • Phase 2 Construction Frequency • Once prior to initial lagoon earthwork in goby habitat area and continuing as determined necessary by biologist.	Potential coordination with CDFG, NOAA/NMFS, and USFWS

	MITIGATION MEASURE	IMPLEMENTATION	MONITORING	OUTSIDE AGENCY COORDINATION
	Reinundation of the western lagoon may provide refuge areas for fish during construction activities in the main lagoon. Block netting and barriers shall be used to exclude adult gobies, migratory steelhead, and other fish from the work areas. On-site monitoring by a USFWS-approved fisheries biologist would be conducted during any channel or bank disturbance. Pages 100 and 101 of the Final Alternatives Analysis prepared by Moffatt and Nichol (March 2005) outline a possible construction sequence in more detail that incorporates several of these ideas.			
BIO-2	Tidewater Goby. Construction of the restoration project shall be timed to minimize disturbance of the western shoreline of the main lagoon when larval tidewater gobies are using the near-shore habitat. In order to avoid direct impacts to gobies, wetland excavation shall occur such that grading activity and equipment are separated from surface connections to the existing lagoon by earthen berms. Groundwater that may accumulate in these excavated areas shall be returned to the lagoon, via pump, in a manner that eliminates sediment and the potential to disturb lagoon salinity stratification, substrate, and temperature. In certain circumstances, physical or biological constraints may make it infeasible for excavations to be separated by earthen berms from the main body of the existing lagoon. In these situations, impacts to gobies shall be avoided by separating construction activity from the main lagoon by the temporary placement of a cofferdam wall, silt curtains, and block nets or a combination of similar tools. In the event that water must be removed from these areas during construction, it	Responsible Party(s) • State Parks Phase • Phase 2 Construction	Responsible Party(s) • State Parks Activity • Retain USFWS-approved biologist to monitor lagoon earthwork and make determination about need for further monitoring as construction continues. Monitoring Period • Phase 2 Construction Frequency • Once prior to initial lagoon earthwork in goby habitat area and continuing as determined necessary by biologist.	Potential coordination with CDFG and USFWS

MITIGATION MEASURE		IMPLEMENTATION	MONITORING	OUTSIDE AGENCY COORDINATION
	shall be returned to the lagoon, via pump, in a manner that eliminates sediment and the potential to disturb lagoon salinity stratification, substrate, and temperature. Fish salvage efforts shall be conducted for any surface water that must be separated from the main lagoon. After construction, the area shall be reflooded in a manner that minimizes disturbance of the lagoon salinity stratification and substrate and the release of sediment. Construction in the main lagoon shall occur outside of the May 1 through November 1 breeding season for the tidewater gobies. Reinundation of the western lagoon may provide refuge areas for fish during construction activities in the main lagoon. Block netting shall be used to exclude adult gobies, migratory steelhead, and other fish from the work areas. On-site monitoring by a USFWS approved fisheries biologist would be conducted during any channel or bank disturbance. Pages 100-101 of the Final Alternatives Analysis prepared by Moffatt and Nichol (March 2005) outlines a possible construction sequence in more detail that incorporates many of these ideas.			
BIO-3	California Brown Pelican. On-site monitoring by a USFWS-approved biologist would be conducted during any disturbance within suitable/occupied habitat for this species.	Responsible Party(s) • State Parks Phase • All Construction	Responsible Party(s) • State Parks Activity • Retain USFWS-approved biologist to monitor lagoon earthwork and make determination about need for further monitoring as construction continues.	Potential coordination with CDFG and USFWS

MITIGATION MEASURE		IMPLEMENTATION	MONITORING	OUTSIDE AGENCY COORDINATION
			Monitoring Period • All Construction Frequency • Once during initial lagoon earthwork and continuing as determined necessary by biologist.	
BIO-4	Western Snowy Plover. Schedule construction activities and ground disturbance in suitable/occupied habitat to avoid the western snowy plover breeding season from mid-March to August 30. On-site monitoring by a USFWS-approved biologist would be conducted during any disturbance within suitable/occupied habitat for this species.	Responsible Party(s) • State Parks Phase • All Construction	Responsible Party(s) • State Parks Activity • Retain USFWS-approved biologist to monitor lagoon earthwork and make determination about need for further monitoring as construction continues. Monitoring Period • All Construction Frequency • Once during initial lagoon earthwork and continuing as determined necessary by biologist.	Potential coordination with CDFG and USFWS
BIO-5	Heermann's Gull. On-site monitoring by a USFWS-approved biologist would be conducted during any disturbance within suitable/occupied habitat for this species.	Responsible Party(s) • State Parks Phase • All Construction	Responsible Party(s) • State Parks Activity • Retain USFWS-approved biologist to monitor lagoon earthwork and make determination about need for further monitoring as construction continues. Monitoring Period • All Construction Frequency • Once during initial lagoon earthwork and continuing as determined necessary by biologist..	Potential coordination with CDFG and USFWS

MITIGATION MEASURE		IMPLEMENTATION	MONITORING	OUTSIDE AGENCY COORDINATION
BIO-6	**Elegant Tern.** On-site monitoring by a USFWS-approved biologist would be conducted during any disturbance within suitable/occupied habitat for this species.	Responsible Party(s) • State Parks Phase • All Construction	Responsible Party(s) • State Parks Activity • Retain USFWS-approved biologist to monitor lagoon earthwork and make determination about need for further monitoring as construction continues. Monitoring Period • All Construction Frequency • Once during initial lagoon earthwork and continuing as determined necessary by biologist..	Potential coordination with CDFG and USFWS
BIO-7	**California Least Tern.** Schedule construction activities and ground disturbance to avoid the California least tern breeding season and post-breeding season foraging (July to August). On-site monitoring by a USFWS-approved biologist would be conducted during any disturbance within suitable/occupied habitat for this species.	Responsible Party(s) • State Parks Phase • All Construction	Responsible Party(s) • State Parks Activity • Retain USFWS-approved biologist to monitor lagoon earthwork and make determination about need for further monitoring as construction continues. Monitoring Period • All Construction Frequency • Once during initial lagoon earthwork and continuing as determined necessary by biologist..	Potential coordination with CDFG and USFWS

MITIGATION MEASURE	IMPLEMENTATION	MONITORING	OUTSIDE AGENCY COORDINATION
HYDRO-1: Maintenance of Stormwater System. Permeable tiles, drainage swales, pumps, pipelines, and any associated equipment must be maintained on a regular basis to ensure full functioning. Maintenance may include removal of fine sediments from tile gaps for proper infiltration and periodic sediment removal from drainage swales for capacity maintenance. The project manager will ensure that all components of the storm drainage system are maintained to design and manufacturer specifications on a regular basis.	Responsible Party(s) • State Parks Phase • Post-construction	Responsible Party(s) • State Parks Activity • Inspection and maintenance of permeable parking lot materials, drainage swales, and other stormwater components. Monitoring Period • Post-construction Frequency • Monthly, with increased frequency as needed during winter months and prior to anticipated storm events.	None.
HYDRO-2: Implement Best Management Practices to Control Discharge of Construction-Related Pollutants to Surface Waters. Because project construction will cover an area greater than 1 acre, a Storm Water Pollution Prevention Plan (SWPPP) will be prepared by the Lead Agency or its contractor as required by the regional water quality control board (RWQCB) under the National Pollutant Discharge Elimination System (NPDES) General Construction Permit. The SWPPP shall meet the requirements of the RWQCB as well as any City and County requirements. The SWPPP will identify best management practices (BMPs) to maintain water quality. The final selection and design of erosion and sediment controls shall be subject to approval by the Lead Agency. BMPs in the SWPPP may include, but is not limited to, the following elements:	Responsible Party(s) • State Parks Phase • Pre-construction; construction	Responsible Party(s) • State Parks Activity • Prepare SWPPP as indicated and implement BMPs as required. Monitoring Period • Construction Frequency • As specified for various BMPs	Regional Water Quality Control Board

MITIGATION MEASURE	IMPLEMENTATION	MONITORING	OUTSIDE AGENCY COORDINATION
• Temporary erosion control measures (such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover) will be employed for disturbed areas. • Earth dikes, drainage swales, and ditches shall be provided to intercept, divert, and convey surface runoff and sheet flow; prevent erosion; and reduce pollutant loading. Specific areas that may need such measures shall be identified on the construction drawings. • Roads used during construction shall be continuously swept and cleaned of accumulated earth and debris in the construction zone during project construction, particularly before predicted rainfall events. • Excavated materials deposited or stored on-site temporarily shall not be placed in or adjacent to open water channels and shall be wetted and covered as necessary to prevent runoff and erosion. • Oils, fuels, and other toxicants spilled or deposited near the project site shall be removed and disposed of according to applicable laws and regulations. • Establish grass or other vegetative cover over areas that have been disturbed by construction as soon as possible after disturbance to establish vegetative cover. This will reduce erosion by slowing runoff velocities, enhancing infiltration and transpiration, trapping sediment and other particulates, and protecting soil from raindrop impact.			

MITIGATION MEASURE	IMPLEMENTATION	MONITORING	OUTSIDE AGENCY COORDINATION
The Lead Agency and/or its contractors shall implement a monitoring program to verify BMP effectiveness. The monitoring program shall begin at the outset of construction and terminate upon completion of the project.			
HYDRO-3: Implement a Hazardous Material Spill Prevention Control and Countermeasure Plan. A Hazardous Material Spill Prevention Control and Countermeasure Plan would be prepared as part of the NPDES General Construction Permit to minimize the potential for, and effects from, spills of hazardous, toxic, or petroleum substances during construction of the project. This plan will describe storage procedures and construction site housekeeping practices and identify the parties responsible for monitoring and spill response. Routine inspections and monitoring of best management practices would ensure minimal impacts to the environment occur. Commonly practiced best management practices include use of containment devices for hazardous materials, training of construction staff regarding safety practices to reduce the chance for spills or accidents, and use of nontoxic substances where feasible. The plan also would describe actions required if a reportable spill occurs, such as which authorities to notify and the proper clean-up procedures. The Hazardous Material Spill Prevention Control and Countermeasure Plan would contain standards considered sufficiently protective such that significant adverse impacts on surface and groundwater quality would be avoided. The plan shall be completed before any construction activities begin.	Responsible Party(s) • State Parks Phase • Construction	Responsible Party(s) • State Parks Activity • Prepare and implement various components of Plan. Monitoring Period • Construction Frequency • As specified in approved plan.	Regional Water Quality Control Board

MITIGATION MEASURE	IMPLEMENTATION	MONITORING	OUTSIDE AGENCY COORDINATION
AQ-1: **Dust sweeping.** The construction area and vicinity (driveways, access roads, and staging areas) shall be swept with water sweepers on a daily basis or as necessary to ensure there is no visible dust.	Responsible Party(s) • State Parks Phase • All Construction	Responsible Party(s) • State Parks Activity • Ensure construction area is swept or watered regularly. Monitoring Period • All Construction Frequency • Daily	None
AQ-2 **Covering or watering of stockpiles.** On-site stockpiles of debris, dirt, or rusty material shall be covered or watered at least twice daily to prevent fugitive dust. All unpaved roads, parking, and staging areas shall be watered at least once every two hours of active operations.	Responsible Party(s) • State Parks Phase • All Construction	Responsible Party(s) • State Parks Activity • Ensure all stockpiles are covered or watered regularly. Monitoring Period • All Construction Frequency • Daily	None
AQ-3 **Covering of Haul Trucks.** All haul trucks hauling soil, sand, and other loose materials shall either be covered or maintain two feet of freeboard.	Responsible Party(s) • State Parks Phase • All Construction	Responsible Party(s) • State Parks Activity • Monitor haul truck activity to ensure compliance. Monitoring Period • All Construction Frequency • Daily	None

MITIGATION MEASURE	IMPLEMENTATION	MONITORING	OUTSIDE AGENCY COORDINATION
CR-1 **Cultural Resources Testing in Area Adjacent to CA-LAN-264.** Cultural resources, including CA-LAN-264 and the historic Adamson House grounds and ancillary structures, will be avoided to the extent possible. The hydrology of the lagoon will not be changed such that the boathouse or grounds are at greater risk of flood or construction impacts. Cultural resources excavations will be undertaken prior to any ground-disturbing activities along the eastern bank of the main lagoon channel adjacent to CA-LAN-264 if any project-related earthwork occurs within 100 feet of the known boundary of CA-LAN-264. Test excavations shall not take place within the known boundaries of CA-LAN-264 but adjacent to the boundaries if project construction would require any ground-disturbing activities within 100 feet of the known site boundary. Because sensitivity is moderate to high for cultural resources, including human remains, to be present along this edge of the project area, a subsurface testing program should be implemented to identify if resources are present and evaluate potentially NRHP-eligible resources. This should be undertaken if any project related construction comes within 100 feet of the known boundary of CA-LAN-264 (See Dillon 1987:45). If subsurface testing identifies intact, significant archaeological resources within the project area that cannot be avoided, the project would have an adverse effect. Development of measures to mitigate adverse effects would be necessary and a Memorandum of Agreement would be required to complete Section 106 consultation.	Responsible Party(s) • State Parks Phase • Phase 2 Construction	Responsible Party(s) • State Parks Activity • Archaeological monitoring of earthwork Monitoring Period • Phase 2 Construction Frequency • Daily for any earthwork within 100 feet of known boundary of CA-LAN-264.	Native American Consultation; Possible SHPO

MITIGATION MEASURE	IMPLEMENTATION	MONITORING	OUTSIDE AGENCY COORDINATION
The preconstruction testing program should include, but need not be limited to: • development of a testing strategy to identify subsurface archaeological deposits, including further research on previous investigations and regarding previous lagoon excavations, in an effort to refine the scope of any field effort; • evaluation of significance and integrity of exposed archaeological deposits (according to the National Historic Preservation Act [NHPA], NRHP, and CRHR criteria) if present, in consultation with the State Historic Preservation Officer (SHPO); and • consultation with local Native Americans if prehistoric or ethnohistoric resources are identified. Upon identification of any significant prehistoric or historical archaeological resources, it will be necessary to avoid these resources during project development, or to formulate a treatment plan to mitigate adverse effects. A treatment plan, adopted within a Memorandum of Agreement, to be negotiated in consultation with the SHPO, would likely include the following: • an acceptable data recovery plan stating specific research goals and questions that are to be addressed if archaeological deposits are to be recovered, • postfield artifact processing and analysis; • report preparation in accordance with the guidelines of DPR, and • permanent curation of artifacts and documents in a repository consistent with the National Park Service guidelines for the			

	MITIGATION MEASURE	IMPLEMENTATION	MONITORING	OUTSIDE AGENCY COORDINATION
	curation of archaeological collections (36 Code of Federal Regulations [CFR79]). Feature recovery should employ standard archaeological excavation techniques. The testing and evaluation plan should be designed and implemented by a qualified Prehistorical Archaeologist, and if discoveries warrant, a qualified Historical Archaeologist. Both the testing and evaluation plan and the data recovery strategy should be developed in consultation with the project proponent and interested local Native American groups. It should state that Native American human remains will be treated in compliance with Health and Safety Code, Sections 7050.5, 8010, and 8011 and Public Resources Code, Section 5097.98. Given the potential for encountering Native American artifacts, a Native American should monitor all subsurface excavations.			
CR-2	Cultural Resources Monitoring in Area Adjacent to CA-LAN-264. Cultural resources monitoring is recommended during any ground disturbing activities along the eastern bank of the main lagoon channel adjacent to CA-LAN-264. Monitoring will be conducted if conditions allow for observation of spoils. Monitoring of dredging is probably not feasible given underwater activity would not be visible. However, underwater cultural sites may be present, and the material dredged will be inspected for the presence or absence of cultural material. The remainder of the project area may be monitored if notable cultural materials are discovered, or monitoring may be further limited if the monitoring area appears previously	Responsible Party(s) • State Parks Phase • Phase 2 Construction	Responsible Party(s) • State Parks Activity • Archaeological monitoring of earthwork Monitoring Period • Phase 2 Construction Frequency • Daily for any earthwork within 100 feet of known boundary of CA-LAN-264.	Native American Consultation; Possible SHPO

	MITIGATION MEASURE	IMPLEMENTATION	MONITORING	OUTSIDE AGENCY COORDINATION
	disturbed (as may be the case in areas where the California Department of Transportation (Caltrans) has deposited fill material and rip rap). If prehistoric cultural resources are discovered in this area during monitoring or other construction, all work will be halted in the vicinity of the archaeological discovery until a qualified archaeologist can visit the site of discovery and assess the significance of the archaeological discovery. Further treatment may be required, including site recordation, excavation, site evaluation, and data recovery.			
CR-3	**Stop Work If Cultural Resources Are Discovered during Ground-Disturbing Activities.** If buried cultural resources—such as flaked or ground stone, historic debris, building foundations, shellfish remains or non-human bone—are inadvertently discovered during ground-disturbing activities, work will stop in that area and within 100 feet of the find until a State Parks archaeologist or designee can assess the significance of the find and, if necessary, develop appropriate treatment measures. Treatment measures typically include: development of avoidance strategies, capping with fill material, or mitigation of impacts through data recovery programs, such as excavation or detailed documentation. Avoidance of cultural remains shall be the top priority at all times. If cultural resources are discovered during construction activities, the construction contractor will verify that work is halted until appropriate site-specific treatment measures, such as those listed above, are implemented.	Responsible Party(s) • State Parks Phase • Phase 2 Construction	Responsible Party(s) • State Parks Activity • Archaeological monitoring of earthwork Monitoring Period • Phase 2 Construction Frequency • Daily for any earthwork within 100 feet of known boundary of CA-LAN-264.	Native American Consultation; Possible SHPO

MITIGATION MEASURE		IMPLEMENTATION	MONITORING	OUTSIDE AGENCY COORDINATION
CR-4	**Comply with State Laws Pertaining to the Discovery of Human Remains.** If human remains of Native American origin are discovered during ground-disturbing activities, it is necessary to comply with state laws relating to the disposition of Native American burials that fall within the jurisdiction of the California Native American Heritage Commission (Public Resources Code Section 5097). Construction work shall not continue within 100 feet of a location where human skeletal remains are found. According to California Health and Safety Code, six or more human burials at one location constitute a cemetery (Section 8100), and disturbance of Native American cemeteries is a felony (Section 7052). Section 7050.5 requires that excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains are those of a Native American. If the remains are determined to be Native American, the coroner must contact the California Native American Heritage Commission to determine the most likely living descendant(s). The most likely living descendant shall determine the most appropriate means of treating the human remains and any associated grave artifacts, and shall oversee disposition of the human remains and associated artifacts by the project archaeologists. This impact would be significant, but implementation of the mitigation measures above would reduce this impact to a less-than-significant level.	Responsible Party(s) • State Parks Phase • Phase 2 Construction	Responsible Party(s) • State Parks Activity • Archaeological monitoring of earthwork Monitoring Period • Phase 2 Construction Frequency • Daily for any earthwork within 100 feet of known boundary of CA-LAN-264.	Native American Consultation; Possible SHPO

MITIGATION MEASURE		IMPLEMENTATION	MONITORING	OUTSIDE AGENCY COORDINATION
N-1	Use of Mufflers. Construction contracts shall specify that all construction equipment shall be equipped with mufflers and other suitable noise attenuation devices.	Responsible Party(s) • State Parks Phase • All Construction	Responsible Party(s) • State Parks Activity • Ensure use of mufflers and other attenuation devices. Monitoring Period • All Construction Frequency • Daily	None
N-2	Notice of Construction Schedule and Noise "Hotline." All residential units located within 500 feet of the construction site shall be sent a notice regarding the construction schedule of the proposed project. A clearly legible sign shall also be posted at the construction site. All notices and the signs shall indicate the expected dates and duration of construction activities, as well as provide a telephone number that residents can call to resolve any concerns about construction noise. The Lead Agency shall be responsible for responding to any local complaints about construction noise. The Lead Agency (or designee) would determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and would be required to implement reasonable measures such that the complaint is resolved.	Responsible Party(s) • State Parks Phase • All Construction	Responsible Party(s) • State Parks Activity • Send notices, post sign, and designate a community liaison and phone number to respond to any noise concerns. Monitoring Period • All Construction Frequency • Daily	None
N-3	Limits of hours of construction. Pursuant to the Noise Control Ordinance of the City of Malibu, Section 8.24.050G, construction activities shall be prohibited during the hours between 7:00 p.m. and 7:00 a.m. during the weekdays and any time on	Responsible Party(s) • State Parks Phase • All Construction	Responsible Party(s) • State Parks Activity • Ensure adherence to construction hours.	None

MITIGATION MEASURE	IMPLEMENTATION	MONITORING	OUTSIDE AGENCY COORDINATION
Sundays or holidays. All construction related to the proposed project would take place between the hours defined by the Ordinance. Additionally, construction activities shall be coordinated with Adamson House staff to ensure that potentially disturbing construction activities do no occur during planned events at the Adamson House, such as Saturday weddings.		Monitoring Period • All Construction Frequency • Daily	

Findings of Fact and Statement of Overriding Considerations

The California Environmental Quality Act (CEQA) requires that a public agency, prior to approving a project, identify significant impacts of the project and make one or more of three written findings for each of the significant impacts. The first possible finding is that "[c]hanges or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR" (*CEQA Guidelines*, Section 15091(a)(1)). The second possible finding is that "[s]uch changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency" (*CEQA Guidelines*, Section 15901(a)(2)). The third possible finding is that "[s]pecific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible mitigation measures or project alternatives identified in the final EIR" (*CEQA Guidelines*, Section 15901(a)(3)).

With respect to a project for which significant impacts are not avoided or substantially lessened, a public agency, after adopting proper findings, may nevertheless approve the project if the agency first adopts a statement of overriding considerations setting forth the specific reasons why the agency found that the project's "benefits" rendered "acceptable" its "unavoidable adverse environmental effects." (*CEQA Guidelines*, Sections 15093, 15043, subdivision (b); see also Public Resources Code Section 21081, subdivision (b).) The California Supreme Court has stated that, "[t]he wisdom of approving . . . any development project, a delicate task which requires a balancing of interests, is necessarily left to the sound discretion of the local officials and their constituents who are responsible for such decisions. The law as we interpret and apply it simply requires that those decisions be informed, and therefore balanced." (Goleta II, 52 Cal. 3d 553, 576.)

A Findings of Fact and Statement of Overriding Considerations report was prepared for this project as a companion document to the Malibu Lagoon Restoration and Enhancement Plan Final EIR. Findings were made for each potentially significant effect associated with the proposed project (as identified in this EIR). The findings demonstrate that all but one potentially significant impact (temporary and intermittent construction noise) could be reduced to a level of insignificance with the incorporation of mitigation measures. The rationale used to make these findings is provided in the following sections of this FEIR:

- Biological Resources – See Chapter 6 of this FEIR
- Cultural Resources – See Chapter 7 of this FEIR

- Hydrology and Water Quality – See Chapter 5 of this FEIR
- Construction Noise - See Chapter 8 of this FEIR

Accordingly, the California Department of Parks and Recreation (DPR) prepared a Statement of Overriding Considerations, acknowledging the potentially significant and unavoidable (albeit temporary and intermittent) construction noise impact that may result from implementation of the project. However, having (1) adopted all feasible mitigation measures; (2) rejected the alternatives to the project discussed above; (3) recognized all significant, unavoidable impacts; and (4) balanced the benefits of the proposed project against the significant and unavoidable effects, DPR made a determination that the benefits of the project to the public outweigh and override the potentially significant unavoidable construction phase noise impact.

A copy of the Findings of Fact and Statement of Overriding Considerations is available for public review at the DPR Angeles District office located at 1925 Las Virgenes Road, Calabasas, California 91302. DPR is the custodian of record for the proposed project and EIR.